

Plant and Equipment Expenditures by Foreign Affiliates of U.S. Corporations—Revised Estimates for 1971 and 1972

Foreign affiliates of U.S. corporations are provisionally estimated to have increased plant and equipment expenditures 9 percent in 1971 to a total of \$14.2 billion, and are planning a 7-percent increase to \$15.2 billion in 1972. These increases are significantly lower than those published in September 1971, and are far below the growth rates registered in 1969 and 1970.

latest estimate of 1971 spending by petroleum affiliates shows only slight revision from the previous estimate, while their anticipated 1972 spending has been increased significantly. Given the strength of current demand for oil, petroleum companies are probably less sensitive than manufacturers to the cyclical slack that now characterizes many foreign economies.

An attempt was made to discern whether the NEP had affected fixed-asset spending by foreign affiliates of U.S. firms. A special questionnaire was mailed to reporters along with the regular December survey form. Of 312 com-

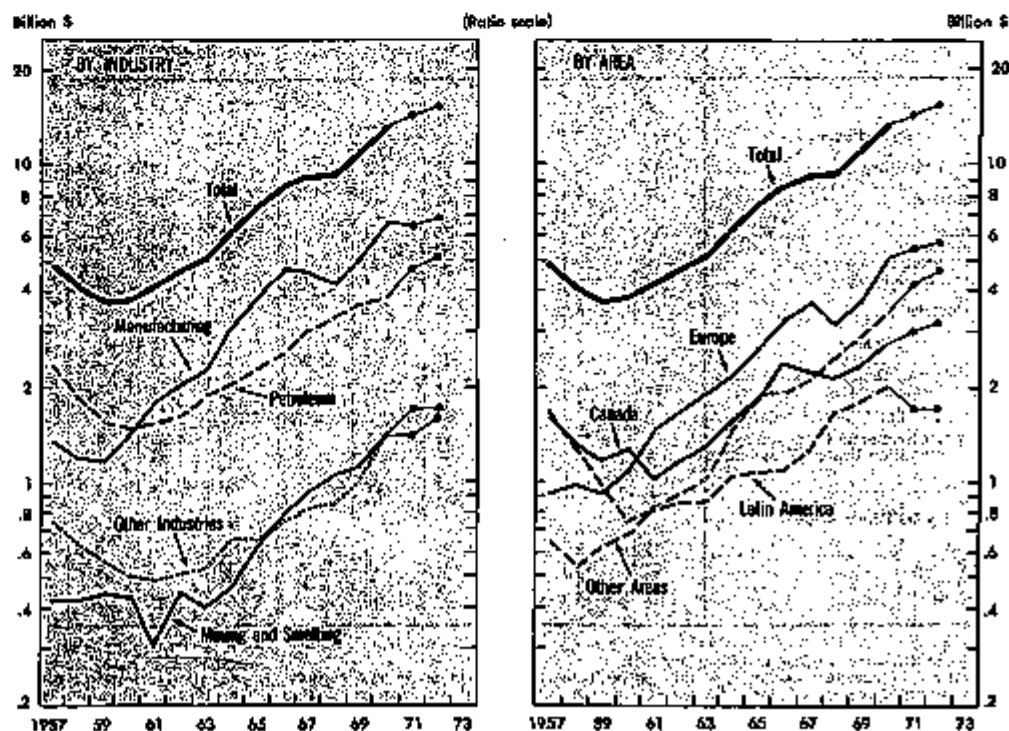
panies responding, 283 said that the expenditure plans of their affiliates had not been affected by the NEP, 20 commented that their plans might be affected but that the extent was unknown as yet, and nine gave specific amounts of increase or decrease in spending (resulting in a small net reduction for the affected group). On balance, these replies suggest that little, if any, of the cutback in planned spending from that reported in the survey taken last June can be attributed to the NEP or the associated changes in exchange rates. However, December may well have been too early a date to measure the

EXPENDITURES for property, plant, and equipment by foreign affiliates of U.S. corporations in 1971 are provisionally estimated at \$14.2 billion, a rise of 9 percent over 1970. An increase of 7 percent is expected in 1972, with total outlays reaching \$15.2 billion (chart 13 and table 1).

These findings are based on the latest BEA semiannual survey of about 450 large U.S. firms, with approximately 4,800 foreign affiliates, taken during December 1971. The firms' reports were thus prepared well after the President's August announcement of the "New Economic Program" (NEP), but during the same month in which major currency realignments were negotiated in the "Smithsonian Agreement."

The latest estimates of 1971 and 1972 spending are significantly lower than those made 6 months earlier, when expenditures of \$14.7 billion were expected in 1971 and \$16.1 billion in 1972. (All projections are adjusted for any systematic bias. See note to table 1 for a discussion of the adjustment procedure.) The downward revision in both years is centered in European manufacturing affiliates and Latin American mining and smelting affiliates. The

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effects of the NEP, or reporters may not have been able to separate the impact of the NEP from other developments, such as the economic slowdown in many foreign countries. The revaluation of foreign currencies, by itself, could work either to increase or to decrease affiliate expenditures as measured in dollars. The dollar equivalent cost of an item denominated in a revalued currency increases. If capital investment programs are maintained in real terms, the cost in dollars increases; on the other hand, revaluation might cause some firms to cut back their investment programs to such an extent that expenditures measured in dollars decline.

The current estimates of aggregate spending increase in 1971 and 1972—9 percent and 7 percent, respectively—are considerably lower than the growth rates of 15 percent and 21 percent registered in 1969 and 1970. The slowdown primarily reflects a shift in manufacturing affiliates' spending, in Europe and Canada, from rapid growth in 1969 and 1970 to no change in 1971 and a

small gain in 1972, coupled with a sharp 1971 drop in spending by Latin American mining and smelting affiliates. Strong growth of spending by manufacturing and petroleum affiliates in Japan is a partial offset to these developments.

Spending by manufacturers of machinery and of transportation equipment declined in 1971, following very large gains in 1969 and 1970. This swing was probably associated with the economic slowdown in Europe. Industrial production there showed very sluggish growth in 1971. The reductions in spending by machinery manufacturers were mostly by computer manufacturers, who are particularly sensitive to business conditions. Manufacturers of transportation equipment, largely auto producers, cut spending in response to sagging sales and profits.

The small 1971 decline in manufacturing spending was more than offset by increased expenditures in the extractive industries, especially

petroleum. Spending by petroleum affiliates is also expected to rise in 1972, but at a slower rate than in 1971. Petroleum companies are expanding international shipping operations in view of the continued shutdown of the Suez Canal, and strong demand is encouraging spirited exploration of new fields, particularly in the Middle East.

Industry pattern

Manufacturing affiliates are currently estimated to have spent \$6.4 billion in 1971, a 1-percent decline from 1970 (table 2). Their spending is expected to increase 7 percent in 1972 to \$6.8 billion, a moderate gain in relation to the 1969 and 1970 increases of 19 percent and 31 percent, respectively. Spending is expected to increase in 1972 in all the major geographic areas, but nearly half the increase is planned for Europe.

Spending by affiliates in the chemical industry increased 4 percent in 1971, with advances in the United Kingdom and the European Economic Community (EEC) and large decreases in

Table 1.—Estimates of Plant and Equipment Expenditures by Foreign Affiliates of U.S. Corporations, Actual and Projected, by Percentage Change and Dollar Amount

Industry, area, and schedule	Percent change								Billions of dollars								
	Actual				Current projection ¹		Prior projection ²		Actual				Current projection ¹		Prior projection ²		
	1967	1968	1969	1970*	1971	1972	1971	1972	1966	1967	1968	1969	1970*	1971	1972	1971	1972
Total.....	7	1	15	23	9	7	12	10	5.6	6.3	9.4	10.3	12.0	11.2	15.2	14.7	16.1
By industry																	
Mining and smelting.....	17	12	6	22	21	2	16	7	.8	.9	1.0	1.1	1.4	1.7	1.7	1.9	2.0
Petroleum.....	19	10	16	5	23	7	22	2	2.6	2.0	3.3	2.6	3.8	4.7	5.1	4.6	4.7
Manufacturing.....	-1	-7	19	31	-1	7	4	12	4.6	4.6	4.2	5.0	6.5	6.4	6.8	6.3	7.6
Chemicals.....	16	0	-9	16	4	0	1	-1	1.0	1.2	1.2	1.1	1.3	1.6	1.5	1.3	1.3
Machinery.....	4	-7	32	43	-3	0	7	26	1.0	1.1	1.0	1.3	1.9	1.8	2.0	2.0	2.6
Transportation equipment.....	-18	-22	26	33	-16	2	-6	3	1.0	.8	.6	.8	1.1	.9	.9	1.0	1.0
Other manufacturing.....	-7	-5	27	31	4	10	6	6	1.6	1.4	1.3	1.7	2.2	2.3	2.6	2.4	2.5
Other industries.....	10	3	23	30	4	12	4	22	.7	.8	.8	1.0	1.4	1.4	1.6	1.4	1.7
By area																	
Canada.....	-5	-5	10	17	2	10	12	11	2.4	2.3	2.1	2.3	2.7	3.0	3.2	3.1	3.4
Latin American Republics and other Western Hemisphere.....	17	26	13	6	-12	-3	-2	6	1.1	1.3	1.6	1.8	2.0	1.7	1.7	1.9	2.0
Europe.....	12	-13	20	34	7	7	9	14	3.3	3.6	2.1	3.7	4.0	4.4	5.7	4.5	6.2
European Economic Community.....	15	-10	20	42	6	6	9	16	1.9	2.1	1.7	2.1	2.9	3.2	3.3	3.2	3.7
Other, including United Kingdom.....	8	-7	10	26	6	9	10	11	1.4	1.5	1.4	1.7	2.1	2.2	2.4	2.3	2.5
Other areas.....	9	17	15	17	24	11	24	6	1.9	2.1	2.5	2.0	3.4	4.2	4.6	4.2	4.4
By OFDI schedule																	
All schedules ³	12	3	15	22	9	7	12	10	5.3	7.0	7.2	8.4	10.3	11.2	12.0	11.6	12.7
Schedule A.....	11	24	17	11	10	1	15	8	1.8	2.0	2.4	2.9	3.2	3.5	3.5	3.7	4.0
Schedule B.....	12	3	14	24	8	14	13	4	2.1	2.4	2.6	2.9	3.6	3.9	4.4	4.1	4.2
Schedule C.....	12	-16	18	32	10	5	0	16	2.4	2.7	2.2	2.6	3.5	3.8	4.0	3.8	4.4

* Revised.

1. Based on the survey taken in December 1971.

2. Based on the survey taken in June 1971, as published in the September 1971 Survey; no adjustments have been made to reflect information received subsequent to that publication.

3. Does not include Canada.

NOTE: Spending projections are adjusted in order to eliminate—or at least reduce—any systematic bias in responses to the 4 surveys of estimated expenditures taken for each year (in June and December of the preceding year and June and December of the year in question

(i.e., A, B, C, and D reports) before the final figures are available (the E report). The 1971 projection is based on the fourth estimate (D reports) of spending for the year; the 1972 projection is based on the second estimate (B reports) of spending for the year. For 1971 D and 1972 B, separately, the projections were derived by calculating ratios of actual spending (the final E estimate) to the reported expectation for each of the previous 5 years. No bias adjustment was made unless there was a deviation in the same direction in at least 4 of the 5 years. Also, no adjustment was made to items below \$10 million. When adjustment was necessary under these criteria, the median ratio of actual to expected spending in the 5-year period was applied as an adjustment factor. (For further discussion, see the Note on Methodology on page 31 of the September 1971 Survey.)

Canada and Latin America. In 1972, spending by chemical affiliates is expected to be about unchanged both in the aggregate and in each major geographic area separately.

Machinery producers reduced spending 3 percent in 1971. They plan a 9 percent increase in 1972, to \$2 billion.

Spending in the EEC was cut sharply in 1971, but in 1972 particularly large increases are projected for the EEC and for Japan. (The cost of machinery acquired or produced by manufacturing affiliates for leasing to others, a significant factor in the computer manufacturing industry abroad, is counted

as part of the manufacturing affiliates' capital expenditure. Therefore, not all the decreases or increases registered in this area affect plant capacity.)

Manufacturers of transportation equipment reduced spending 16 percent in 1971, primarily due to heavy cuts in Canada and the United Kingdom. A

Table 2.—Estimates of Plant and Equipment Expenditures by U.S. Corporations' Foreign Manufacturing Affiliates, by Selected Country

[Billions of dollars]																
By area and major manufacturing industry	Actual					Projection ¹		By area and major manufacturing industry	Actual					Projection ¹		
	1966	1967	1968	1969	1970 ^a	1971	1972		1966	1967	1968	1969	1970 ^a	1971	1972	
All areas	4,588	4,526	4,191	4,376	6,504	6,416	6,885	Europe—Continued								
Chemicals	1,040	1,210	1,308	1,118	1,379	1,388	1,390	Italy	125	150	166	151	279	371	318	
Machinery	1,034	1,038	1,010	1,244	1,920	1,865	2,081	Chemicals	26	34	39	20	30	30	45	
Transportation equipment	806	799	618	796	1,000	899	932	Machinery	57	60	74	90	141	166	183	
Other manufacturing	1,881	1,438	1,249	1,729	2,215	2,331	2,676	Transportation equipment	2	2	2	4	6	8	8	
								Other manufacturing	60	48	60	67	74	79	82	
Canada	1,174	1,041	854	1,038	1,859	1,883	1,847	Netherlands	161	198	147	209	228	244	198	
Chemicals	221	166	168	169	186	154	218	Chemicals	102	137	105	141	125	151	97	
Machinery	186	190	144	222	213	209	244	Machinery	83	38	26	35	63	45	44	
Transportation equipment	205	234	294	211	258	108	153	Transportation equipment	1	2	1	1	2	6	7	
Other manufacturing	513	411	338	434	472	532	502	Other manufacturing	15	21	15	26	38	43	49	
Latin American Republics and Other Western Hemisphere	469	585	548	611	669	633	761	Other	215	251	235	242	330	300	307	
Chemicals	146	150	179	198	170	167	172	Chemicals	72	59	100	66	83	87	70	
Machinery	55	78	86	95	141	156	172	Machinery	88	61	54	78	107	109	118	
Transportation equipment	71	88	90	104	113	97	163	Transportation equipment	11	10	12	12	20	9	17	
Other manufacturing	171	189	229	214	244	224	284	Other manufacturing	76	66	69	83	120	96	104	
Argentina	91	100	71	96	135	111	99	Japan	183	194	237	268	374	389	474	
Chemicals	27	30	15	14	18	14	14	Chemicals	55	81	129	108	119	121	98	
Machinery	11	18	16	23	45	41	42	Machinery	53	54	53	90	178	178	241	
Transportation equipment	58	34	23	40	49	27	22	Transportation equipment	2	2	2	2	2	2	2	
Other manufacturing	20	18	15	18	29	29	21	Other manufacturing	38	43	41	68	69	101	186	
Brazil	100	131	185	184	181	197	368	Australia, New Zealand, and South Africa	329	256	295	346	328	374	389	
Chemicals	19	29	60	12	45	21	37	Chemicals	47	47	66	58	44	45	46	
Machinery	35	35	48	45	56	63	88	Machinery	47	26	32	35	51	50	56	
Transportation equipment	20	34	51	39	31	47	107	Transportation equipment	72	85	96	86	106	103	85	
Other manufacturing	32	32	34	34	64	61	106	Other manufacturing	142	98	101	126	196	175	182	
Mexico	126	139	181	170	206	187	192	Australia, and New Zealand	289	314	244	244	335	362	308	
Chemicals	62	60	76	36	51	75	76	Chemicals	87	39	67	22	38	23	37	
Machinery	14	17	17	22	28	34	31	Machinery	42	23	26	30	42	46	61	
Transportation equipment	6	6	6	14	26	16	21	Transportation equipment	63	76	76	50	68	88	61	
Other manufacturing	44	48	69	75	90	82	82	Other manufacturing	127	82	86	101	158	136	149	
Other	126	141	128	161	145	135	132	South Africa	90	42	52	42	60	82	81	
Chemicals	39	50	38	55	59	47	45	Chemicals	10	14	10	7	8	8	9	
Machinery	11	5	12	9	12	12	11	Machinery	4	6	5	5	9	6	6	
Transportation equipment	12	18	13	11	6	7	10	Transportation equipment	10	10	19	6	14	14	34	
Other manufacturing	74	66	78	66	73	72	65	Other manufacturing	16	13	17	24	26	82	33	
Europe	2,244	2,532	2,418	2,599	3,593	3,681	3,900	Other Africa	58	31	15	15	31	49	33	
Chemicals	482	636	524	458	661	797	741	Chemicals	2	2	4	3	8	4	3	
Machinery	684	713	689	981	1,316	1,210	1,283	Machinery	1	1	1	2	4	2	5	
Transportation equipment	584	479	393	390	551	584	491	Transportation equipment	1	1	1	1	1	1	1	
Other manufacturing	588	694	599	794	1,064	1,107	1,286	Other manufacturing	64	27	9	8	20	42	23	
United Kingdom	646	643	622	806	1,075	1,078	1,102	Middle East	22	48	111	73	126	68	84	
Chemicals	115	127	117	128	164	193	178	Chemicals	18	50	109	58	50	4	11	
Machinery	184	141	148	183	233	228	214	Machinery	3	1	1	1	2	2	1	
Transportation equipment	150	124	74	108	180	161	84	Transportation equipment	1	1	1	1	1	1	1	
Other manufacturing	289	281	249	398	492	507	629	Other manufacturing	3	11	7	8	74	47	53	
European Economic Community	1,881	1,438	1,106	1,440	2,388	2,372	2,590	Other Asia and Pacific	150	146	103	130	185	179	164	
Chemicals	276	427	314	368	614	617	490	Chemicals	88	78	47	35	52	50	45	
Machinery	444	510	486	623	978	879	963	Machinery	23	14	8	18	21	18	22	
Transportation equipment	373	245	146	210	335	371	383	Transportation equipment	1	1	1	1	1	1	1	
Other manufacturing	289	256	249	321	482	506	552	Other manufacturing	59	22	48	75	81	103	63	
Belgium and Luxembourg	186	200	182	111	181	200	247	India	91	50	26	47	68	93	77	
Chemicals	46	110	78	33	68	59	103	Chemicals	44	28	11	11	23	20	29	
Machinery	25	46	42	30	38	32	41	Machinery	15	5	3	3	9	6	19	
Transportation equipment	60	25	5	4	7	14	14	Transportation equipment	31	15	12	31	34	64	88	
Other manufacturing	46	21	27	48	70	66	69	Other	60	98	77	88	88	86	87	
France	289	371	307	338	544	510	588	Chemicals	24	60	36	24	28	20	16	
Chemicals	37	60	28	30	55	60	73	Machinery	7	5	2	12	12	9	12	
Machinery	139	176	179	182	316	284	304	Transportation equipment	1	5	1	1	1	1	1	
Transportation equipment	44	75	32	41	64	78	73	Other manufacturing	28	35	35	43	47	44	54	
Other manufacturing	74	78	68	76	109	126	138									
Germany	551	618	424	607	935	1,047	1,048									
Chemicals	60	86	61	65	139	197	178									
Machinery	191	164	164	278	489	380	391									
Transportation equipment	267	162	108	179	237	268	286									
Other manufacturing	63	96	59	116	171	192	204									

Source: U.S. Department of Commerce, Bureau of Economic Analysis. 1. See note, table 1. Revised.

2-percent increase planned for 1972 reflects a sizable increase in Latin America which is mostly offset by additional heavy cuts in the United Kingdom.

Manufacturing affiliates in all other industries, taken together, increased spending 4 percent in 1971 and plan a 10 percent increase in 1972. All major areas show increases in both years, except Latin America, where spending fell in 1971. The gains in this "other manufacturing" group largely reflect spending by pulp and paper producers, manufacturers of primary and fabricated metals, and manufacturers of photographic and photocopy equipment.

Affiliates in *petroleum* increased spending 23 percent in 1971, to \$4.7 billion. This was the largest percentage rise of any of the major industries. Petroleum affiliates are planning an aggregate 8 percent spending increase to \$5.1 billion in 1972. The 1971 increase was centered in outlays for tanker construction, which will be an important growth sector again in 1972 (table 3). Large increases are shown in both years in the Middle East and Indonesia. Large declines are reported for Libya in both years and for Latin America in 1972.

Expenditures by the *mining and smelting* industry in different areas have

shown divergent trends over the past several years. Spending in Canada and Australia has been very strong, while political developments in Latin America have sharply restricted spending there. Total expenditures increased from \$1,035 million in 1968 to a projected \$1,710 million in 1972. Within that total, expenditures in Latin America dropped from \$456 million to \$278 million while expenditures in other areas, principally Canada and Australia, increased from \$579 million to \$1,432 million (table 3).

In 1971, total expenditures by affiliates in mining and smelting increased 21 percent despite a steep cut—\$220 million or 48 percent—in spending in Latin America, primarily in Chile. Total expenditures in 1972 are expected to be up very slightly from the 1971 level. The 1971 increase was concentrated in Canada and Australia; affiliates in Canada are planning further increases in 1972, but those in Australia are planning cutbacks.

Affiliates in "other industries" are estimated to have increased outlays 4 percent in 1971 and expect a 12 percent gain in 1972. Most of the growth in this group is in expenditures by affiliates in trade, leasing, and services.

Geographic pattern

European affiliates are estimated to have increased spending 7 percent in 1971 to \$5.4 billion, and are planning another 7 percent increase in 1972 (table 1). These gains are much smaller than the increases recorded in 1969 and 1970. The rate of spending growth in EEC countries slowed from 42 percent in 1970 to 8 percent in 1971; a 6 percent rise is planned in 1972. A sharp deceleration in the growth of spending by manufacturing affiliates accounted for most of the slowdown after 1970. The growth of expenditures by EEC petroleum affiliates accelerated to 26 percent in 1971—from 18 percent in 1969 and 16 percent in 1970—due largely to expansion of facilities in Germany. However, EEC petroleum affiliates expect virtually no change in 1972.

Total spending in European countries outside the EEC rose 6 percent in 1971 following a 26 percent increase in 1970.

Table 3.—Estimates of Plant and Equipment Expenditures by U.S. Corporations' Foreign Affiliates in the Petroleum, Mining and Smelting, and Other Industries (Except Manufacturing)

(Millions of dollars)

Area and major industry division	Actual					Projection ¹	
	1966	1967	1968	1969	1970 ²	1971	1972
Petroleum							
All areas.....	2,526	3,001	3,311	3,549	3,965	4,489	5,090
Canada.....	649	696	869	629	726	791	839
Latin American Republics and Other Western Hemisphere.....	288	306	403	601	614	543	429
Venezuela.....	101	108	175	288	312	205	166
Other Latin American Republics.....	100	149	164	188	183	216	167
Other Western Hemisphere.....	88	54	64	125	119	121	96
Europe.....	772	1,045	861	676	974	1,335	1,399
United Kingdom.....	163	249	293	344	256	204	209
European Economic Community.....	434	582	401	472	546	699	760
Belgium and Luxembourg.....	40	101	71	31	71	135	89
France.....	94	61	62	86	107	109	127
Germany.....	172	251	101	164	128	178	219
Italy.....	87	95	86	111	166	198	189
Netherlands.....	39	77	32	91	74	76	86
Other.....	180	174	167	158	172	281	291
Japan.....	120	146	297	189	242	305	369
Australia, New Zealand, and South Africa.....	92	96	123	211	165	134	135
Other Africa.....	265	363	607	580	446	362	293
Middle East.....	296	191	186	164	141	225	491
Other Asia and Pacific.....	91	125	156	201	304	417	450
International shipping.....	49	94	136	319	312	657	813
Mining and smelting							
All areas.....	790	928	1,025	1,123	1,367	1,682	1,710
Canada.....	297	332	366	366	413	687	726
Latin American Republics and other Western Hemisphere.....	229	289	464	497	477	256	276
Europe.....	3	3	3	3	4	3	3
European Economic Community.....	4	5	7	7	12	12	14
Other, including United Kingdom.....	287	292	229	285	461	744	649
Other industries (except manufacturing)							
All areas.....	743	823	969	1,039	1,366	1,463	1,585
Canada.....	237	264	265	326	434	415	518
Latin American Republics and other Western Hemisphere.....	144	183	220	245	291	294	296
Europe.....	86	100	115	140	188	186	232
European Economic Community.....	140	146	134	164	327	268	360
Other, including United Kingdom.....	139	129	113	153	295	259	269

1. See note, table 1. ² Revised.

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Affiliates in those countries plan an 8 percent increase in 1972. Manufacturing affiliates cut spending in 1971 but this was offset by a sharp increase in spending by petroleum affiliates. Spending in Spain by petroleum affiliates is particularly strong.

Affiliates in Canada increased spending 8 percent in 1971 and plan a 10 percent rise in 1972 to \$3.2 billion. The 1971 increase was centered in mining and smelting, but affiliates in all major industries are planning increases in 1972.

Heavy reductions in mining and smelting expenditures led to a sharp decrease in Latin American spending in 1971. Aggregate expenditures are expected to be reduced another 3 percent in 1972, to \$1.7 billion, even though Brazilian manufacturing affiliates, primarily those in transportation equipment, expect to increase expenditures 20 percent.

Affiliates in the rest of the world—identified in table 1 as "Other Areas"—increased spending 24 percent in 1971 to \$4.2 billion, and an 11 percent increase is projected for 1972. Over three-fourths of these gains are due to spending by petroleum affiliates in the Middle East and Indonesia and in the international shipping category.

Japan is becoming an important center of expenditures by affiliates. Until a few years ago spending in Japan was relatively small, but it is now approaching the billion dollar level, with projected expenditures of \$0.9 billion in 1972. The sharp growth in recent years presumably reflects the relatively rapid economic growth in Japan and possibly the easing of restrictions on investment. Manufacturing outlays in Japan in 1972 are projected to rise 19 percent to \$476 million and petroleum expenditures 18 percent to \$359 million. In both industries, these 1972 increases are far stronger than total worldwide growth.

On the country schedules established by the Office of Foreign Direct Investments (OFDI), affiliates in Schedule C countries (including most of continental Western Europe and South Africa) increased spending 10 percent in 1971 to \$3.8 billion, and plan a 5 percent increase to \$4 billion in 1972. These countries are those for which controls

on capital outflows from the United States are strictest. However, expenditures by affiliates do not necessarily lead to outflows of U.S. funds, which the OFDI program is designed to limit. To the extent that investment can be financed by borrowing abroad, spending for plant and equipment is not limited by OFDI regulations.

Affiliates in Schedule B countries (including Spain, the United Kingdom,

the Middle East, Japan, and Australia) increased spending 8 percent in 1971 to \$3.9 billion, and expect an increase of 14 percent to \$4.4 billion in 1972. Affiliates in Schedule A countries (including most of the less developed countries), for which controls on capital outflows are most lenient, increased spending 9 percent in 1971, to \$3.5 billion, and plan a 1-percent increase to \$3.6 billion in 1972.

(Continued from page 37)

ment-owned stocks operated by non-financial corporations. A discussion of the treatment of these stocks can be found in Robert J. Gordon, "\$45 Billion of U.S. Private Investment Has Been Misplaced," *American Economic Review*, June 1969, and "Comments" by George Jaszi and "Reply" by Gordon, *American Economic Review*, December 1970. Because of data limitations, no similar estimates can be made of assets used by the nonfinancial corporate sector but owned by financial institutions or the personal sector.

The inventory stocks in constant (1958) dollars shown in table 3 are derived separately for major industries. For each industry a benchmark level of stocks calculated on the LIFO basis was prepared for the first year for which LIFO data were available. This level is moved backward to 1947 by successively deducting the corporate share of LIFO inventory change in constant (1958) dollars shown in the national income and product accounts, and moved forward to 1971 by successively adding the corporate share of the LIFO inventory change. For the non-LIFO stocks, book values are adjusted for price changes directly to derive the constant dollar stocks. Inventories for each industry in current dollar valuation are derived by multiplying the constant dollar stocks by indexes of year-end current replacement prices.

Total factor input

In table 4, indexes of labor and capital input are derived from the estimates of man-hours worked and capital stock, and combined into an index of total factor input.

The index of labor input is simply an index of man-hours worked, with no adjustment for the intensity with which man-hours are utilized or for changes in skills.

The index of capital input is derived using a procedure developed by Edward F. Denison for the economy as a whole. Inasmuch as the services provided by a capital good do not remain constant over the life of the asset, but decline somewhat as retirement approaches, the constant dollar capital stock employed to measure capital input is calculated as a weighted average of net and gross stocks with net stocks receiving a weight of 0.25 and gross stocks a weight of 0.75. No adjustment is made for changes in utilization.

The indexes of labor and capital input are combined into an index of total input by the following procedure. The average labor and capital shares of national income originating in nonfinancial corporations are computed for all years from 1948 through 1969, excluding years significantly affected by recessions (1949, 1953, 1954, 1957, 1958, 1960, and 1961). These average labor and capital shares are 0.782 and 0.218, respectively. To derive the index of total factor input, the annual percent change in the index of labor input is multiplied by the average labor share and the annual percent change in the index of capital input is multiplied by the average capital share and the results are summed to obtain the annual percent change in total factor input. These annual percent changes are then chained to a base of 1958=100 to provide the index of total factor input shown in table 4.